

**REMARKS**

Claims 1-20 are pending in the application.

Claims 1-20 have been rejected.

Claims 1, 7, and 13 have been amended as set forth herein.

Claims 1-20 remain pending in this application.

Reconsideration of the claims is respectfully requested.

The Applicants have made the arguments set forth above in order to place this Application in condition for allowance. In the alternative, the Applicants have made the amendments and arguments to properly frame the issues for appeal. In this response, the Applicants make no admission concerning any now moot rejection or objection, and affirmatively denies any position, statement or averment of the Examiner that was not specifically addressed herein.

**I. CLAIM REJECTION UNDER 35 U.S.C. §102**

Claims 1-5 and 7-20 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,590,350 to *Guttag, et al.*, (“Guttag”). This rejection is respectfully traversed.

Claim 1 recites unique and novel elements, including those emphasized below:

A method for supporting software pipelining, comprising:  
receiving a shift mask signal from a shift mask register having  
information on a shifting region of a register file, wherein the shifting  
region comprises a plurality of non-contiguous registers;  
receiving a shift signal from an external component to trigger  
a shift;

identifying a shifting register queue based on the shift mask signal, wherein the shifting register queue comprises a plurality of queue registers; and

shifting the contents of the queue registers based on the shift signal such that each register in the shifting register queue receives the contents of the previous register in the shifting register queue.  
[Emphasis Added]

The element "the shifting region comprises a plurality of non-contiguous registers" is submitted not be taught, suggested, or anticipated by the prior art of record. This element is fully supported by the original specification, as filed, including the following excerpt of the original specification:

The shifting region of the register file 102, which forms the shifting register queue 204, comprises at least a portion of those registers 202. Thus, for the illustrated embodiment, the shifting register queue 204 comprises a first set 204a of registers, a second set 204b of registers, and a third set 204c of registers. It will be understood, however, that this is for illustration only and that the shifting register queue 204 may comprise any combination of registers 202 without departing from the scope of the present invention. Furthermore, as illustrated in FIGURE 2, the shifting register queue 204 of the register file 102 need not be contiguous. The ability to define a non-contiguous shifting register queue 204 may be taken advantage of by the register allocator phase in a compiler to simplify or optimize register allocation. [Il. 4-17, pg. 14 Specification as filed]

Claims 7 and 13 have been amended to also include elements similar to that of claim 1. Therefore, claims 7 and 13 are similarly patentable over the prior art.

Claims 2-5, 6-12, 14-20 indirectly or directly from claims 1, 7, 13. The Applicants respectfully submit that claims 2-5, 6-12, 14-20 are also patentable, at a minimum by virtue of their dependency, over the prior art of record.

Accordingly, the Applicants respectfully request that the §102 rejection with respect to Claims 1-5 and 7-20 be withdrawn.

## **II. CLAIM REJECTION UNDER 35 U.S.C. §103**

Claim 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Guttag. The Applicants respectfully traverse the rejection.

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. MPEP §2142, p. 2100-125 (8th ed. rev. 5, August 2006). Absent such a *prima facie* case, the applicant is under no obligation to produce evidence of nonobviousness. *Id.* To establish a *prima facie* case of obviousness, three basic criteria must be met: *Id.* First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. *Id.* Second, there must be a reasonable expectation of success. *Id.* Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *Id.* The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *Id.*

Claim 6 depends from allowable Claim 1 and thus is also allowable as shown above. Moreover, *Guttag* does not teach using 0's to identify bits. Moreover, there is no suggestion or motivation within *Guttag* to prompt one of ordinary skill to selectively combine discrete elements from *Guttag* and then *seek out* still others as required by Claim 6.

Accordingly, the Applicants respectfully request the §103 rejection with respect to Claim 6 be withdrawn.

**CONCLUSION**

As a result of the foregoing, the Applicants assert that the remaining Claims in the Application are in condition for allowance, and respectfully request an early allowance of such Claims.

If any issues arise, or if the Examiner has any suggestions for expediting allowance of this Application, the Applicants respectfully invite the Examiner to contact the undersigned at the telephone number indicated below or at *wmunck@munckcarter.com*.

The Commissioner is hereby authorized to charge any additional fees (including any extension of time fees) connected with this communication or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

MUNCK CARTER, LLP

Date: February 9, 2010

  
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